

1. Are you currently doing Earned Value Reporting at your site?

Earned value at PPPL is utilized on design/construction projects (examples include TFTR D-T prep, NSTX Construction, NSTX Neutral Beam Fabrication and TFTR D&D).

2. If so, how long have you been doing it and what type of software/system are you using to do this?

Earned value techniques have been utilized at PPPL since the mid-80's on select projects. Primavera Project Planner is the software utilized for estimating, scheduling and progress measurement on the major project at PPPL.

3. Could you briefly describe how you define and calculate earned value?

Earned value (or Budgeted Cost of Work Performed, BCWP) is expressed in dollars and calculated at the individual activity (task) level by applying the task's percent complete times the original baseline budget for the task. Level-of-effort (LOE) tasks (i.e. project management and support) within a project automatically accumulate BCWP as the passage of time. Once collected the earned value is summarized to the cost account level where a comparison to actual cost can be made.

4. Which organization is responsible for Earned Value Reporting at your site? Is the Finance organization solely involved or do other organizations provide support?

The business operation office, via the planning and control officer, is responsible for earned value reporting including the operation and maintenance of the software and hardware infrastructure. The project assigned cost account managers are responsible for providing percentage completion for each task within their cost account plan on a monthly basis. This data is processed by the Planning and Control individual assigned to the project and a Cost Performance Report (CPR) is generated showing the BCWP along with the planned budget (BCWS) and actual cost (ACWP).

5. How often is this reporting done? How long does it take each time? How many people are involved in this process?

Progress assessment is performed on a monthly basis. Collection of data typically takes 2-3 hours while processing and analysis time

Project Manager	3 hours
Cost Account Manager	.25 hr per cost account
Planning and Control Officer	12 hours

6. Was it a major undertaking to get Earned Value Reporting implemented or was it relatively easy? How long did it take? How many people were involved? Was a cross functional team put together and, if so, what types of job classifications were represented?

When there is a clear value added (i.e. for projects with concrete deliverables) resistance is minimal. It should be pointed out that PPPL's earned value system is encompassed in a larger Project Controls System process that requires formal work authorization (planning, scheduling, budgeting), progress measurement, reporting and analysis and change control. These have been documented in PPPL's Project Control System description which was formally approved by DOE in 1993. In short earned value is not implemented on all projects, as such it requires minimal labor to support.

7. What have been the benefits of using Earned Value Reporting?

Earned value techniques provide the only measurement of measuring actual cost expenditures to planned work. Knowing whether the project is spending above or below a planned expenditure curve has minimal value unless one knows what work has been accomplished for the money!

8. Would you be willing to share some lessons learned or best practices with us?

1. Earned value measurement must be a part of a more disciplined and formal project controls system.
2. The key to an effective project control systems is a monthly (or more frequent) assessment of progress between the project manager and cost account manager. Periodic discussions of cost, schedule, and technical performance and issues are the key to successfully managing a project.
3. Keep the system (procedures and processes) simple but at the

4. Establish a project management plan that lays out the framework for how a project will be monitored and controlled.